

What Is Claimed Is:

1. A signal conditioning device, comprising:
a processor;
an input coupled to the processor;
an output coupled to the processor;
wherein the processor has stored thereon instructions which, when executed by the processor, cause the processor to provide an output signal incident at the output that corresponds to an input signal incident at the input.
2. The signal conditioning device of claim 1, further comprising:
a second input coupled to the processor to receive a second signal incident thereon; and
a third input coupled to the processor to receive a third signal incident thereon; and
wherein instructions, when executed by the processor, cause the processor to offset the output signal from the input signal based on the second and third signals.
3. The signal conditioning device of claim 2, wherein the signal incident at the input is related to air mass, the second signal is related to engine operating level and the third signal is related to desired engine operating level.
4. The signal conditioning device of claim 3, wherein the engine operating level signal includes engine speed and the desired engine operating level includes a position of a throttle.
5. The signal conditioning device of claim 2, wherein a table indexed by the second and third signals contains modifiers and a modifier corresponding to a current level of the second signal and a current level of the third signal is used to calculate the output signal.
6. The signal conditioning device of claim 5, further comprising a user interface through which a user varies the modifier.

7. The signal conditioning device of claim 5, further comprising non-volatile memory in which the modifier is stored.
8. The signal conditioning device of claim 3, wherein the input signal is air temperature.
9. The signal conditioning device of claim 3, wherein the output signal is a modified air temperature signal.
10. The signal conditioning device of claim 3, wherein the input signal is air pressure.
11. The signal conditioning device of claim 3, wherein the output signal is a modified air pressure signal.
12. The signal conditioning device of claim 1, wherein the input signal is de-coupled from an engine control unit input and the output signal is coupled to the engine control unit input.
13. The signal conditioning device of claim 12, wherein the engine control unit is to vary an amount of fuel to be delivered to an engine based on the level of the output signal.
14. The signal conditioning device of claim 1, wherein the output signal corresponds to the input signal and a factor.
15. The signal conditioning device of claim 2, wherein the signal incident at the input is an output from an engine control unit, the second signal is related to engine operating level and the third signal is related to desired engine operating level.
16. The signal conditioning device of claim 15, wherein the signal incident at the input is a fuel control signal.
17. The signal conditioning device of claim 15, wherein the signal incident at the input is a pulse-width modulated signal provided from an engine control unit and the signal incident at the output is provided to a fuel actuator.

18. The signal conditioning device of claim 15, wherein the engine operating level signal includes engine speed and the desired engine operating level includes a position of a throttle.

19. The signal conditioning device of claim 1, wherein the input signal is de-coupled from an actuator and the output signal is coupled to the actuator.

20. A user interface, comprising:

a first switch causing the user interface to perform a first function when actuated for a short duration and causing the user interface to perform a second function when actuated for a long duration;

a second switch causing the user interface to perform a third function when actuated for a short duration and causing the user interface to perform a fourth function when actuated for a long duration;

a display that provides information related to the function selected by the first and second switches.

21. The user interface of claim 20, wherein the first function, the second function, the third function, and the fourth function are related to engine fueling.

22. The user interface of claim 20, wherein a short duration actuation includes depressing one of the first or second switches for less than one-half of one second and a long duration actuation includes depressing one of the first or second switches for more than one-half of one second.

23. The user interface of claim 20, wherein:
the first function selects a control table;
the second function selects an area of the control table;
the third function steps a value related to the selected region of the selected control table; and
the fourth function switches the third function between stepping in a positive direction and a negative direction.
24. The user interface of claim 23, wherein the control table selected immediately prior to de-energizing the user interface is active when the user interface is reenergized.
25. The user interface of claim 23, wherein the value stepped by the third function is limited to a predetermined high value.
26. The user interface of claim 23, wherein the value stepped by the third function is limited to a predetermined low value.
27. The user interface of claim 23, wherein the control table and the region may be restored to a default control table with default regional values by actuating the first switch and the second switch when the user interface is energized.
28. The user interface of claim 23, wherein the display indicates the selected region and a value associated with the selected region.
29. The user interface of claim 20, wherein the first and second switches are actuated by depressing those switches.

30. A method of modifying a signal, comprising:
uncoupling a signal that controls mass of fuel injected into a cylinder
from an engine control unit input;
coupling the signal to a signal conditioning device input;
modifying the signal based on a current actual engine operating level
and current desired engine operating level; and
coupling the modified signal to the engine control unit input.

31. The method of claim 30, further comprising:
a user varying a value associated with a range of engine operating
level and a range of desired engine operating level; and
modifying the signal based on the value associated with the current
engine operating level and the current desired engine operating level.